**Session 7- Geometry and Measurement**

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| **TIME** | AGENDA | VOCAB | RESOURCES |
| **4:00** | * Welcome/Intro |  |  |
| **4:15** | **Circles**  Introduce the vocabulary for this lesson by playing a simple word game called Rivet. (See *It’s Riveting!)*  After each word is revealed, have teachers write down the word and discuss the definition found in Beckman pg. 448. | Circle, radius, diameter, chord, circumference, compass,  sector | It’s Riveting! |
| **4:45** | **Approximating π**  Most people can tell you that the value of Pi is 3.14, but they have no idea what it is for and where it came from. Use this activity to help teachers discover the ratio between πand the diameter of a circle.  <http://illuminations.nctm.org/LessonDetail.aspx?ID=L573> |  |  |
| **5:30** | * **Central and inscribed angles, arc, and sector**   The following links are great interactive tools to show the relationship between central and inscribed angles and the measure of their corresponding arcs:  <http://www.mathwarehouse.com/geometry/circle/interactive-central-angle-of-circle.php>  <http://www.mathwarehouse.com/geometry/circle/inscribed-angle.html> |  |  |
| **6:00** | **BREAK** |  |  |
| **6:15** | **Area of a Circle**  Demonstrations of the area formula for a circle and areas of sectors.  <http://illuminations.nctm.org/LessonDetail.aspx?ID=L574> |  |  |
| **7:00** | **Areas of circles and sectors, and π as the ratio of the area circle to the square of the radius.**  Now that we have discovered Pi, it is important for teachers to be able to use it “fluently” in order to find information about a circle when given a variety of facts.    *Use the worksheets provided to guide participants through the following skills:*  Finding the *area* of a circle when given the *radius* Finding the *area* of a circle when given the *diameter* Finding the *radius* of a circle when given the *area* Finding the *diameter* of a circle when given the *area*  \*\*\*There are plenty of worksheets for you to go through guided practice and then allow time for participants to work independently. Don’t forget: *I do, we do, ya’ll do, you do!* |  | Multiple area, radius & diameter sheets |
| **7:45** | **Homework:** Area and Diameter HW sheets   * READING: None * Journal- Reflection on tonight’s lesson |  | Area HW sheet  Diameter HW Sheet |